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THE EFFECT OF CASTRATION ON WOMAN, AND OTHER PROBLEMS IN GYNECOLOGY.

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THERE are problems in gynecology not yet fully solved, on which I purpose in this paper to give my own individual opinion—an opinion that I do not claim to be infallible, but which is based upon a large experience.

One question not yet satisfactorily answered is this: What effect upon a woman has the removal of her ovaries? Unquestionably there usually follow the annoyances of the change of life. These, in my experience, are long spun out, because, when menstruation has been abruptly and artificially stopped, the change of life, especially in young women, takes more time to become fully established than when the menopause has been naturally induced. Consequently, years may elapse before the victim of the operation escapes from the perspirations, the flashes of heat, the skin-tinglings, the numbness of the extremities, the nerve-storms, and all other vaso-motor disturbances, the name of which is legion. My experience, therefore, coincides with that of Hegar, who says that "the artificial menopause induced by the operation is often attended with more

serious complications than those which are not rarely observed in the natural change of life."[1]

Then again the unwelcome fact cannot be shirked that mental disturbances may be traced directly to the removal of the ovaries as a cause. These are manifested by brooding, by low spirits, by melancholy and even by insanity. Every ovariotomist has met with such painful episodes in his practice. Glavaecke, who has made a study of this subject, goes so far as to declare that "in almost all cases the mind becomes more or less affected, and not infrequently melancholia results."[2] Keith has stated that ten per cent. of his patients who recover from hysterectomy subsequently suffer from melancholia or from other forms of mental disease.[3] Yet this result must come, not so much from the extirpation of the womb, which is merely a muscular bag, as from the associated ablation of the ovaries, of which the womb, physiologically, is only the appendage.

Whether this deplorable event is due directly to the nerve-shock of the operation itself, together with its emotional environment; whether to the abrupt arrest of an habitual flow; or whether to the absolute need of the ovaries for mental equilibration—is yet an open question. We know, however, that sexuality is a potent factor in woman as well as in man, and that even certain sexual functions—such as coition, menstruation, gestation, parturition, and lactation —of themselves tend not infrequently to disturb the mental poise. I am disposed, however, in a

[1] British Medical Journal, December, 1886, p. 1280.
[2] N. Y. Medical Journal, July 20, p. 73. [3] Ibid., p. 73.

measure to attribute the attacks of insanity in those women who have lost their ovaries to their brooding over the thought that they are unsexed; and if brooding may be deemed in itself a mental aberration, Glavaecke's sweeping statement is not an extravagant one.

But, after all, the burning question is: Does the removal of the uterine appendages affect the sexual sense of the woman, or in any way unsex her? Here we have an embarassing diversity of opinion. Some operators contend that in these respects castration does not affect her at all; others that it does so, and often very decidedly. The truth in such cases usually lies in the mean, as I shall try to show.

In my *Lessons in Gynecology* and in my early teachings I maintained that the removal after puberty of the ovaries and the tubes does not unsex the woman—at least not to a greater extent than castration after puberty unsexes the man. In the one the ability to inseminate is lost; in the other the capability of being inseminated; but in both the sexual feelings remain pretty much the same. Males who have lost their testes after the age of puberty are said to retain the power of erection, and even of ejaculation, the fluid being of course merely a lubricating one. The amorous proclivities of the ox or of the steer are the scandal of our highways. Alive to these facts, Oriental jealousy demands in a eunuch the complete ablation of the genital organs. Not only are the testes, therefore, removed, but also the scrotum and the penis flush with the pubes. Hence, to avoid the soiling of his clothes, every eunuch carries in his pocket a short

silver tube, which he inserts merely in the pubic meatus whenever he passes his water. I contended, further, that, apart from cessation of menstruation and from inevitable sterility, the woman after castration remains unchanged, having the same natural instincts and affections; that the sexual organs continue excitable, and that she is just as womanly and as womanish as ever. I held that the seat of sexuality in woman had long been sought for, but in vain. The clitoris had been amputated, the nymphæ had been excised, and the ovaries and tubes extirpated; yet the sexual desire had survived these mutilations. The seat had not been found, because sexuality is not a member or an organ, but a sense—a sense dependent on the sexual apparatus, not for its being, but merely for its fruition. My inference was that the physical and psychic influence of the ovaries upon woman had been greatly overrated. In the popular mind a woman without ovaries is not a woman. Even Virchow contends that "on these two organs (the ovaries) depend all the specific properties of her body and her mind, all her nutrition and her nervous sensibility, the delicacy and roundness of her figure, and, in fact, all other womanly characteristics." This statement I held to be true only in so far as the ovaries are needful for the primary or rudimental development of woman, but not true when once she is developed; for then they are not essential to her perpetuation as woman.

In time, however, I slowly found out that the removal of the ovaries does blunt and often does extinguish ultimately the sexual feeling in woman;

although the removal of the testes after puberty is said not to impair the virile sense of the male. This random opinion, however, I very much doubt, despite the maudlin sentiment expressed even about eunuchs by De Amicis and by other travellers in the Orient. For the secretion of the seminal fluid is in itself the great aphrodisiac, and how otherwise can we explain the changed behavior of Abelard toward Heloïse after his forcible castration? Giving up this analogy, therefore, in my more recent teachings I adopted that of the menopause as suggested by Kœberlé. I accepted his analogy, although I could not wholly accept his inference that woman is not affected sexually by the natural cessation of her menses. Kœberlé sums up his opinion in the following words: "In my own experience the extirpation of both ovaries causes no marked change in the general condition of those who have been operated on. They are women who may be considered as having abruptly reached the climacteric. Their instincts and affections remain the same, their sexual organs continue excitable, and their breasts do not wither up." [1]

A riper experience, of which time was the main element, has led me still further to modify my views on this subject. Unquestionably the natural change of life when fully established, but not until it is fully established, does very sensibly dull and deaden the sexual sense of woman, which ultimately disappears in her long before virility is effaced in man. Nor is the survival of this sense after the menopause so

[1] Nouveau Dictionnaire de Médecine et de Chirurgie, tome xxv, p. 487.

essential to woman, because after the cessation of menstruation she loses the power of procreation, which is retained to an advanced age by man. This is a wise provision of Nature, for, did the sexual sense of the wife outlast that of the husband it could not be gratified. Sensible of these changes, a gifted French authoress makes one of her heroines say, with italicized emphasis: "*Men* may forget the course of years; they may love and become parents at a more advanced period than we can, for Nature prescribes a term after which there seems to be something monstrous and impious in the idea of (our) seeking to awaken love. . . . . Yes; age closes our mission *as women* and deprives us of our sex." Now what happens in the natural menopause holds good in that artificially and abruptly produced, with this important difference, that in the latter the sexual feeling is sooner lost. I am willing to concede that in some women, by no means in all, whose health had been so crippled by diseased appendages as to extinguish all sexual feelings, there is, after castration, a partial recovery of the lost sense whenever health has been regained. Yet even in these cases, as far as I can ascertain—for women are loath to talk about these matters—the flame merely flares up, flickers, and soon goes out.

My own experience would lead me to the conclusion that in the majority of women who have been castrated the sexual impulse soon abates in intensity, much sooner than after a natural menopause, and that in many cases it wholly disappears. This tallies with Glavaecke's conclusion that "in most of the cases the sexual desire is notably dimin-

ished and in many cases is extinguished." In corroboration of this statement let me cite, out of my many cases in point, a few of the more salient ones. The wife, aged thirty-four, of a farmer, so exhausted him by her sexual exactions that his health suffered very seriously. The appendages were diseased and fixed by adhesions. After their removal menstruation and the sexual impulse continued unabated for a little over a year, when the former wholly ceased, and the latter not long after disappeared. Another case was the very ardent wife, aged thirty, of a man who was not so well-mated to her. She was sterile and had excessive menorrhagia from a uterine fibroid, for which her ovaries were removed. Menstruation did not reappear, and in less than two years all sexual feeling was lost. In a third case, a young lady of high intelligence was reduced to a pitiable condition of ill-health by menorrhagia and by frequent acts of self-abuse. She was not insane, yet, incredible as it may seem, she sometimes masturbated no fewer than eight times in the four and twenty hours. For several months after the removal of the ovaries, which were apparently healthy in every respect, she kept up her bad habits, although the monthly flow never returned. Then the sexual feeling gradually vanished, and she gave up her solitary vice. In a fourth case I removed the healthy ovaries of an unmarried lady of middle age who was queer, but not insane enough to be confined. Toward her monthly periods she was goaded by so irresistible a desire for sexual intercourse that she herself feared her going astray. Not long after her castration, which was done more

to save her from reproach than to cure her insanity, she lost the desire wholly and absolutely. She did not, however, regain her reason, and ultimately had to be placed in an insane asylum.

Imlach's case is a celebrated one in medico-legal jurisprudence. This skilful surgeon, after removing the appendages of a woman, was prosecuted by her for unsexing her, and by her husband for spoiling thereby his marital pleasures. The special committee appointed to investigate Imlach's numerous cases of castration at the Woman's Hospital, in Liverpool, reported that they found "a distinct loss of sexual feeling to such an extent as to cause serious domestic unhappiness in not a few instances." The correctness of this report is corroborated from cases in my own practice, of engagements broken off, of conjugal estrangements, and of marital infidelity.

Let me here remark that I was once consulted by the late Dr. Kerlin about the propriety of removing the ovaries from a feeble-minded inmate of his institution, whose shameless intercourse with the other sex was the only bar to her being at large. Being very sanguine that the operation would succeed in its object I urged its performance. He, however, could not get the official sanction which we both wished for our own legal protection, and nothing further was done than to keep the girl under lock and key.

In other sexual characteristics I have not found in these women any marked changes, either physical or psychic. Their affections seem to remain the same; their breasts do not flatten or wither up;

they do not become obese; abnormal growths of hair do not appear on the face or on the body, and the tone of their voice and its quality are not changed. In one word, there has not been in a single one of my cases a tendency toward any characteristic of the male type. If any change has taken place, it has been in the direction of old-maidhood.

In close relation with this subject four questions come to the fore, and grave ones they are:

a. Do chronic diseases of the appendages often lead to a fatal issue?

b. To restore health to the woman suffering from such diseases of the appendages, is it needful invariably to invoke the aid of surgery?

c. After an abdominal section has been made, and after adhesions have been broken, must the now free appendages always be removed?

d. Is castration of the female a warrantable operation for the cure of insanity or of epilepsy?

To the first question I answer that the death-rate from chronic diseases of the appendages is greatly overrated, so much so that, in my opinion, more deaths result from the operation of removing the tubes and ovaries, in the hands of even the most successful gynecologist, than from the disease itself. Knowsley Thornton states that "in his own experience pyosalpinx is not necessarily a fatal disease." In my experience, after the patient has safely passed through the acute stage of the inflammatory attack, her life is in very little danger. Chronic diseases of the appendages usually affect the well-being of the woman, but they ordinarily do not threaten her life

in any other way than by the wear and tear of prolonged discomfort. This may shorten her days, but fatal attacks of peritonitis, even in so-called leaky pus tubes—if such ever exist—are the exception. Paradoxic as it may seem, the life of a woman with but one ailing appendage is in greater danger than the life of a woman with both of her appendages diseased. The explanation is a simple one: Parturition very generally relights a chronic inflammation of the pelvic organs, but when both appendages are diseased pregnancy rarely takes place.

To cure the ill-health of a woman whose appendages are diseased, or to relieve her from her sufferings, a surgical operation is by no means always necessary. Many women with adherent tubes and ovaries, and, for the matter of that, some even with pus in these organs, suffer either no inconvenience whatever, or very little indeed from that condition *per se*. There are, again, others who have pains or aches only at their monthly periods. But let their health break down, say from influenza, from malaria, from overwork, or from nerve-strain, then symptoms may arise from hitherto latent pelvic lesions. Yet, in most of these cases, if the woman can be restored to her former condition of health—that is to say, to that which she enjoyed just before the final breakdown—she will lose her local symptoms and become symptomatically well. On this matter I can speak positively, for many a patient has been sent to my private hospital in order to have her distinctly diseased tubes and ovaries removed, who has been restored to health without the use of the knife. Now, by the term "*restored to health*," I do not

mean that the treatment has released the adherent appendages, but that it has freed the woman from every pain and restored her fully to all her social and domestic duties and pleasures. She has been cured so well as to be able to row, to swim, to dance, to take long walks, to ride on horseback, and to exercise in the gymnasium—and what better vouchers of good health than these can be given?

I will go yet further and assert that even cases with all the subjective and all the objective symptoms of ovarian or of tubal abscess have been cured by me without any operation whatever—the pus having disappeared either through absorption or through inspissation. What is still more strange, in a few cases of abscess of each uterine appendage—very few, I will acknowledge—the treatment by massage, electricity, local applications, and by a general building up of the system was followed by conception, pregnancy, and parturition. These were cases in which I did not advocate castration until other means had been tried first, but all had been sent to me by their physicians for the purpose of having their ovaries removed.

I come now to two cases on which I urged castration. Perhaps I have had more, but I cannot recall them. Each one had the fixed, sausage-like, tubal tumor on either side. Yet each patient, to my very great surprise, conceived and bore children. The one, a patient of my friend Dr. D. Murray Cheston, first consulted me and afterward a gynecologist of world-wide renown, who corroborated my diagnosis of double pus-tubes, and doomed her, as I had, to hopeless sterility. The puerperal convalescence

was stormy and at one time threatening; but she ultimately got well. The other case is a standing joke of my friend Professor Parvin, who knew the circumstances. The woman presented similar characteristics to those of the preceding case, and I urged an operation. This she luckily refused to undergo, and a year or more afterward gave birth to twins. Of course, the rejoinder will be made, that my diagnosis, although shared by other specialists besides myself, was a faulty one. But I can as unhesitatingly reply that had the objector made the examination he inevitably would have followed it by an abdominal section, and as inevitably would have removed both appendages, as I certainly should have done had I opened the abdomen.

Now, in these cases, the pus was either confined to the ovaries, or, as I supposed from the sausage-like form of the tumors, it lay sealed up in the tubes, and the closed-up lumen of one of them was, by returning health, restored to full patency. The possibility of a closed-up tube regaining its bore is I know strongly disputed, even ridiculed, and *a priori* reasoning would certainly justify the doubt. If, however, solid uterine fibroids of stony hardness and of several pounds weight will through absorption wholly disappear, as every gynecologist has seen them disappear, why may not the tubal barriers and septa also break down and become absorbed. I have read somewhere, but the reference I cannot now find, that, in order to prevent conception in a case of narrow pelvis, both tubes were ligated, without establishing sterility. On the other hand, great disorganization of the ovaries is not incompatible

with pregnancy, for it appears that a very small amount of ovarian stroma goes a great way. Menstruation often continues, however diseased the ovaries may be, and Atlee reports two cases in which one ovary having been removed, the other became so cystic as to need *repeated tappings*. Yet each woman not only menstruated, but conceived and gave birth to a child.[1] In one of these cases, a cyst of the sole ovary, the other having been removed many years previously, was tapped twice before conception, twice before delivery, seven times afterwards and then was extirpated. Robertson[2] mentions a remarkable case in point, which occurred in his practice. He removed both the ovaries, which were diseased, of one of his patients, yet she afterward conceived and gave birth to a child. His explanation is that he must have left, unwittingly, a scrap of healthy ovarian tissue in one of the stumps. But on the other hand, the ovum could not have descended into the womb, unless the lumen of one tube had reopened at the point where it had been sealed up by the adhesive inflammation set up by the ligature.

With regard to the third problem: Supposing simply therapeutic measures fail, and the physician is driven to surgical interference, must he, after breaking up the adhesions, always extirpate the now free uterine appendages? Most surgeons contend not only that the diseased appendage should be removed, but also that both appendages should be extirpated, even if one alone is diseased. This

[1] Atlee: Ovarian Tumors, pp. 38 and 39.

[2] British Medical Journal, September 27, 1890, p. 722.

advice is given on the ground that the healthy one is liable in its turn to become affected. My own course, under such circumstances, would be never to remove the healthy appendage unless the menopause had been established already, or unless there obtained a good reason for hastening it on. On the other hand, should both ovaries be intrinsically diseased and their tubes contain pus, I would always remove both uterine appendages in their totality, no matter what the age of the patient might be. Generally, however, the pus is limited to the tubes, and in that case sometimes one ovary, barring its adhesions, which, of course, must be broken, is healthy enough to be left behind. In such a case the tube alone, if possible, should be removed, and not the healthy ovary or the healthy ovaries—if both happen to be sound. Further, rather than wholly remove all ovarian stroma, I should try in such cases to leave behind even a small fragment; for, in several of my cases in which a piece of an ovary, not larger than a bean, was left behind, not any menstrual or sexual changes whatever took place in the woman. Should the uterine appendages be merely adherent, and not intrinsically diseased to any extent, I would as a rule, during active menstrual life, release them, and perhaps extirpate the worse of the two, but not both of them.

My reasons for this conservative treatment are, that the complete extirpation of these organs, as I have shown before, tends to destroy the sexual feeling, to disturb the mental equilibrium, and to produce prolonged nervous perturbations, all of which come from the abrupt and untimely suspension of

menstruation. There is yet another very excellent reason for this advice: The majority of physicians, and all laymen, look upon women deprived of their ovaries as unsexed. Just as castration is in the male, so the analogous operation is in the female deemed a sexual mutilation to which common consent attaches a stigma. No woman would marry a eunuch, and few men would wed a woman deprived of her ovaries. In my own practice I have known of several very sad cases of marriage engagements broken off, of marital infidelities, and of bitter estrangement between husband and wife, all of which would have been avoided had one ovary been spared, or, indeed, had a mere fragment of one been left behind.

Upon the question of the removal of the uterine appendages for the cure of insanity and of epilepsy, I have very few words to say, but they are all based upon cases occurring in my own practice. If the insanity is limited to periodic outbreaks, strictly ovarian in their character and with the menstrual flux as a storm-center; if the epileptic fits are preceded by an ovarian aura—that is to say, if they pivot around the monthly period and appear at no other time—the removal of the appendages, by suppressing a pernicious menstruation, usually will bring about a cure in either disease. But when these organs are extirpated merely as a panacea *per se* for these mental and neural disorders, irrespective of an ovarian origin, the operation affords no relief. At the same time I am free to confess that, in order to stamp out insanity, I am strongly inclined to advocate the legal castration of every man and of every woman who is the unfortunate victim of this hereditary curse.